



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0867; Product Identifier 2017-CE-021-AD; Amendment 39-19411; AD 2018-19-11]

RIN 2120-AA64

Airworthiness Directives; Viking Air Limited Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Viking Air Limited Models DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking found in the wing rear spar web at the wing station where the flap outboard hinge is attached. We are issuing this AD to require actions to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0867; or in person at Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.

For service information identified in this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (800) 663-8444; fax: (250) 656-0673; email: technical.support@vikingair.com; Internet: <http://www.vikingair.com/support/service-bulletins>. You may view this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for Docket No. FAA-2017-0867.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7329; fax: (516) 794-5531; email: aziz.ahmed@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Viking Air Limited Models DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III airplanes. The SNPRM published in the Federal Register on May 7, 2018 (83 FR 19983). We preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the Federal Register on September 8, 2017 (82 FR 42489). The NPRM proposed to require inspecting the wing rear spar and flap/aileron support brackets within 400 hours time-in-service (TIS) and reporting the

results to the manufacturer. The NPRM was based on mandatory continuing airworthiness information (MCAI) originated by Transport Canada, the aviation authority for Canada. The MCAI states:

It was reported that a crack was found in the wing rear spar web, part number C2W1007, at wing station 123.5 where the flap outboard hinge is attached. An aileron hinge bracket has also been found cracked. Viking Air Ltd. analysis shows that similar cracks may develop on the wing rear spar web and flap/aileron hinge arm support brackets at the other flap/aileron hinge attachment locations.

Undetected cracking of the wing rear spar or flap/aileron hinge bracket may lead to the failure of the component with consequent loss of aeroplane control.

The MCAI requires inspecting the left-hand and right-hand wing rear spar and the flap/aileron hinge air support brackets for cracks, damage, or discrepancies and repairing or replacing any parts with cracks, damage, or discrepancies. The MCAI can be found in the AD docket on the Internet at <https://www.regulations.gov/document?D=FAA-2017-0867-0002>.

The SNPRM proposed to revise the compliance times to require the inspections within 400 hours TIS or 6 months, whichever occurs first, to match the compliance times in the MCAI.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the SNPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

Viking Air Limited has issued Viking DHC-2 Beaver Service Bulletin Number: V2/0009, Revision A, dated February 10, 2017. The service information describes procedures for inspecting the left-hand and right-hand wing rear spars, the flap/aileron hinge brackets, and the exterior store support bracket for cracks, damage, and discrepancies. The service information also specifies repairing or replacing any parts that have cracks, damage, or discrepancies. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Interim Action

We consider this AD interim action. The inspection report required by this AD allows us to obtain better information into the nature, cause, and extent of the damage to the wing rear spars and flap/aileron hinge arm support brackets and to develop final action to address the unsafe condition. After evaluating the inspection results, we may consider further rulemaking.

Costs of Compliance

We estimate that this AD will affect 140 products of U.S. registry. We also estimate that it will take about 11 work-hours per product to comply with the basic inspection requirements of this AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the basic cost of this AD on U.S. operators to be \$130,900, or \$935 per product.

Reporting the inspection findings would require about 5 minutes, for a cost of \$7 per airplane and \$980 for the U.S. operator fleet.

In addition, the following is an estimate of possible necessary follow-on replacement actions. We have no way of determining the number of products that may need these actions.

Part Number	Left-Hand (LH) or Right-Hand (RH) Wing	Description	Number Per Airplane	Parts Cost	Number of Work-Hours to Replace
C2W123A	Both (one per wing)	Hinge bracket LH inboard (flap) / RH outboard (aileron)	2	\$288 for both	12 for both
C2W124A	Both (one per wing)	Hinge bracket RH inboard (flap) / LH outboard (aileron)	2	\$288 for both	12 for both
C2W143	Both (four per wing)	Hinge bracket, flap and aileron (common part - multiple wing stations (WS))	8	\$271 for all eight	12 for all eight
C2W143A (Agricultural Option)	Both (one per wing)	Agricultural (optional configuration) – hinge bracket, support arm (IPC PSM 1-2-4 Figure 128, Item 15)	2 (if applies)	\$271 for both	12 for both
C2W63	LH	Inboard spar, rear spar		\$277	60
C2W64	RH	Inboard spar, rear spar		\$277	60
C2W155	Both (one per wing)	Intermediate spar	2	\$563 for both	60 for both

C2W65A	LH	Spar WS 89.16 to WS 170.16	1*	\$835	60
C2W66A	RH	Spar WS 89.16 to WS 170.16	1*	\$835	60
C2W67A	LH	Outboard spar, WS 170.16 to WS 245.75	1*	\$835	60
C2W68A	RH	Outboard spar, WS 170.16 to WS 245.75	1*	\$835	60

*To replace any wing spar section takes 60 work-hours.

To replace all four wing spar sections per wing takes 240 work-hours.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0867; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the SNPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-19-11 **Viking Air Limited:** Amendment 39-19411; Docket No. FAA-2017-0867; Product Identifier 2017-CE-021-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Viking Air Limited Models DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 57: Wings.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking found in the wing rear spar web at the wing station (WS) where the flap outboard hinge is attached. We are issuing this AD to detect and correct cracks in the wing rear spars and the flap/aileron hinge arm support brackets. This condition, if not corrected, could result in structural failure with consequent loss of control of the airplane.

(f) Actions and Compliance

Unless already done, do the actions in paragraphs (f)(1) through (5) of this AD:

(1) Within 400 hours time-in-service (TIS) after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or within 6 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs first, visually inspect the left-hand and right-hand wing rear spar and flap/aileron hinge arm support brackets by following the Accomplishment Instructions of Viking DHC-2 Beaver Service Bulletin Number: V2/0009, Revision A, dated February 10, 2017 (SB V2/0009, Revision A).

(2) For airplanes with an agricultural configuration installed (SOO Mod 2/984), within 400 hours TIS after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or within 6 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs first, inspect the exterior store support arm bracket at WS 101.24 by following the Accomplishment Instructions of SB V2/0009, Revision A.

(3) If any discrepancies are found during the inspections required in paragraphs (f)(1) and (2) of this AD, before further flight, repair or replace using a method approved by the Manager, New York ACO Branch, FAA; Transport Canada; or Viking Air Limited's Transport Canada Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(4) Within 30 days after completing the inspections required in paragraphs (f)(1) and (2) of this AD, using the Operator Reply Form on page 7 of SB V2/0009, Revision A, report the inspection results to Viking Air Limited at the address specified in paragraph (i)(3) of this AD.

(5) As of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), do not install a wing on any airplane affected by this AD unless it has been inspected as specified in paragraphs (f)(1) of this AD and paragraph (f)(2) of this AD, if applicable, and is found free of any discrepancies.

(g) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury,

New York 11590; telephone: (516) 228-7329; fax: (516) 794-5531; email: aziz.ahmed@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada; or Viking Air Limited's Transport Canada DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Reporting Requirements*: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

(h) Related Information

Refer to MCAI Transport Canada AD Number CF-2017-17, dated May 18, 2017, for related information. You may examine the MCAI on the Internet at <https://www.regulations.gov/document?D=FAA-2017-0867-0002>.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Viking DHC-2 Beaver Service Bulletin Number: V2/0009, Revision A, dated February 10, 2017.

(ii) Reserved.

(3) For Viking DHC-2 Beaver service information identified in this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (800) 663-8444; fax: (250) 656-0673; email: technical.support@vikingair.com; Internet: <http://www.vikingair.com/support/service-Bulletins>.

(4) You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. In addition, you can access this service information on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0867.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on September 7, 2018

Melvin J. Johnson

Aircraft Certification Service

Deputy Director, Policy and Innovation Division, AIR-601

[FR Doc. 2018-20802 Filed: 9/24/2018 8:45 am; Publication Date: 9/25/2018]